

# WeldFix 6 lite

**Circular primary circuit connectors | Welding automation**

EN



# Primary circuit connectors WeldFix 6 lite

Stäubli primary circuit connectors WeldFix are designed for supplying power to different kinds of welding units.

**With over 30 years of experience in automotive bodyshops, our connectors for primary circuit lines guarantee reliable power supply in AC and MFDC spot welding applications.**

Quick disconnect solutions for manual welding guns are essential for rapid installation, simplified maintenance and reduced downtime. Small in size and high in performance, these connectors allow you to easily divide power cables between weld timer cabinet and welding transformer into several sections.

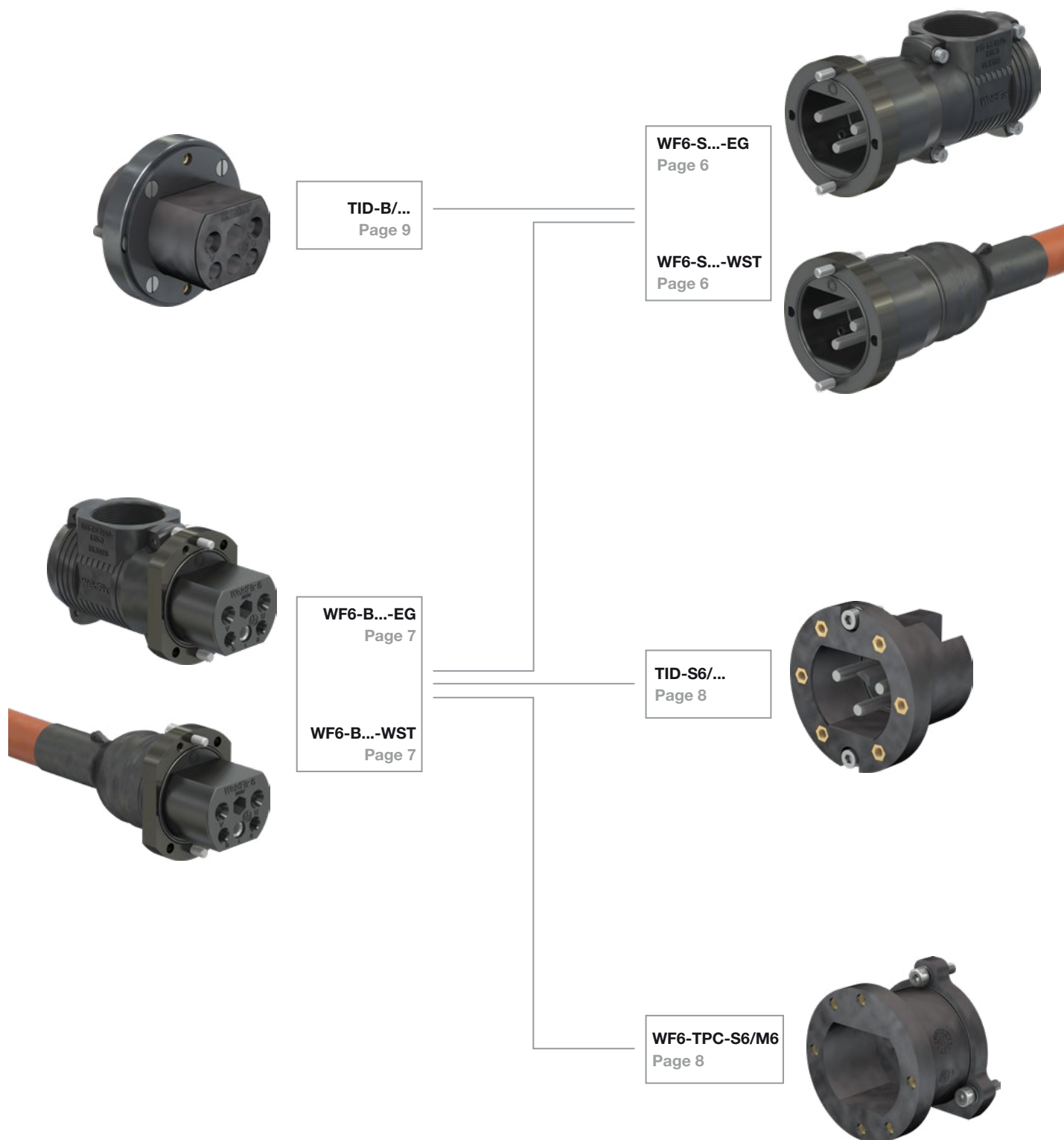
With this cost-effective range, you profit from long-lasting solutions featuring both highest contact reliability and current-carrying capacity. For additional safety of operators, it is possible to connect pilot contacts for signal leads.



Only plastic glands are recommended for the cable lead-in connections. Nevertheless, should a metal cable gland in exceptional

conditions be used, then it must be included in the safety measures (earthing). Cable glands are not supplied.

# Connector overview and combinations

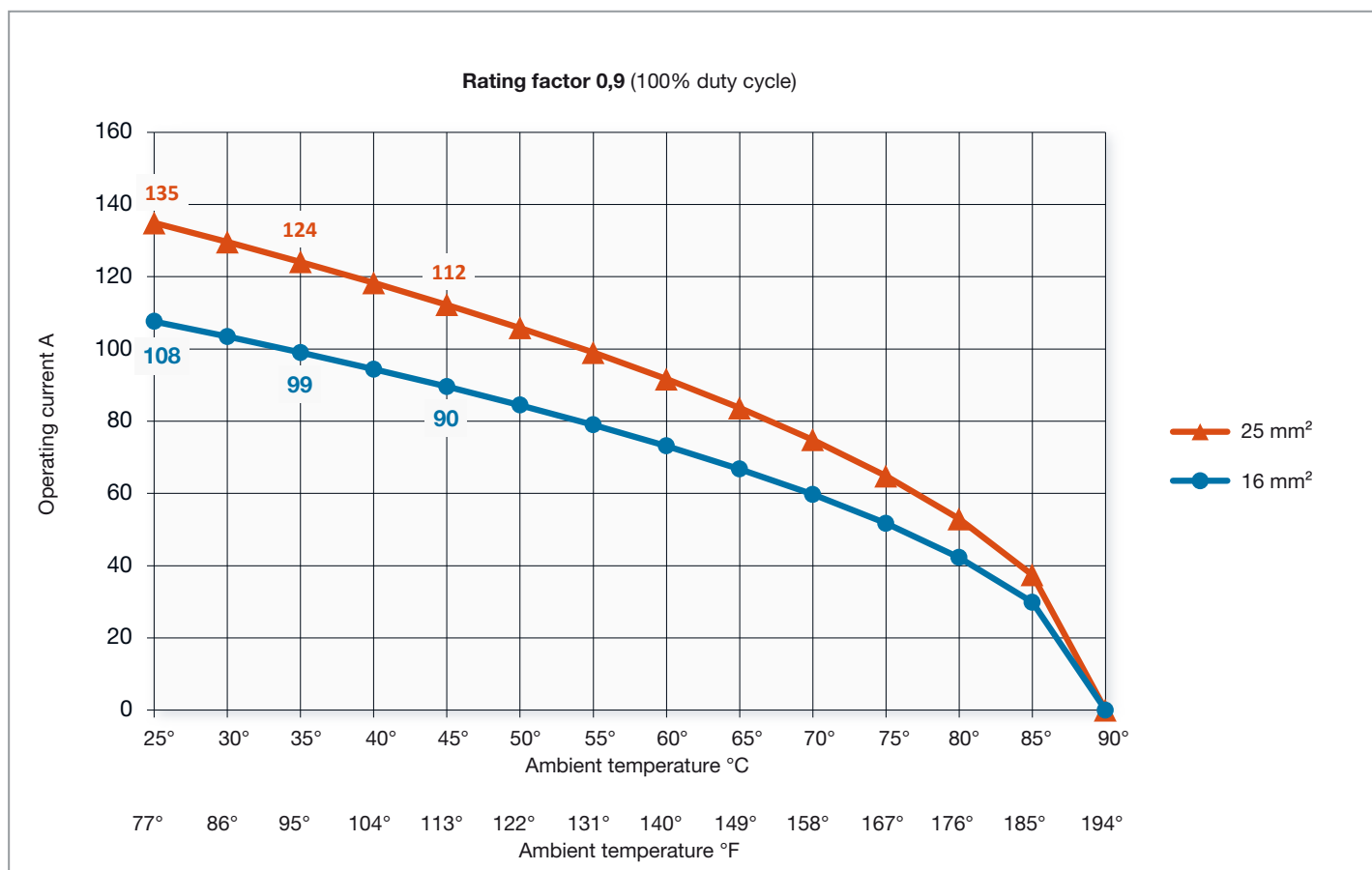


# Technical data

Technical data	
Number of poles	2+PE
Rated current	(derating diagrams, page 5)
Rated voltage	1000 V
Test voltage	4.26 kV (50 Hz)
Insulation resistance	> 103 MOhm
Insulation coordination	6kV/3 VDE 0110-1, IEC 60664-1
Operating temperature	-20 °C...+90 °C
Pollution degree	3
Overvoltage category	CAT III
Mating cycles	1000
Type of termination	Crimp Screw Power contacts/Pilot contacts (optional) TID-S6/M5 receptacle (15.0316) for cable lugs 16 mm <sup>2</sup> or 25 mm <sup>2</sup> (not supplied)
Conductor cross-section	Power contacts 16 mm <sup>2</sup> – 25 mm <sup>2</sup> Pilot contacts 0,5 mm <sup>2</sup> – 1,5 mm <sup>2</sup> (optional)
Material/Plating	Power and pilot contacts Cu alloy, silver plated (Ag) Sockets Equipped with MULTILAM Insulators Elastomere (WF6-...) or PUP (TID-S...) Mounting flange Aluminum, black anodized
Protection (when mated)	IP55 when using heat-shrinking form shrouds IP54 when using end-housings
Protection (unmated)	IP2X on socket side (IEC) Contacts are watertight longitudinally
Further specifications	IEC/EN 61984, DIN VDE 0298-4/2013-06 ISO 10656, VDE 0627

# Derating diagram

Depending on cross-sections, ambient temperature, cable type and welding frequency, WeldFix 6 lite solutions can be used for thermal steady current (continuous) up to 135 A.



Calibration and test method according to DIN 41640/part 3.

The derating diagram values are valid for the connection (see standard EN 60204).

The permissible current load of the cables can be seen in DIN VDE 0298-4 and DIN EN 60204-1, IEC 60204-1.

# Male flanged connector sets

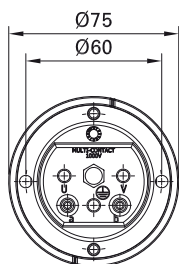
Connector sets below are available for 2 cable cross-sections with either a straight form shroud or a robust end-housing (re-usable).

Power contacts are always included in the delivery. Pilot contacts are also available under a different order number.

Coding pins can be added to eliminate the possibility of mating errors and protective caps protect from dust and humidity.



WF6-S...-EG



WF6-S...-WST

Order No.	Type	Designation	Pin contacts		Strain relief		Pilot contacts
			SP6/16 (16 mm <sup>2</sup> )	SP6/25 (25 mm <sup>2</sup> )	M40 <sup>1)</sup> End-housing	Form shroud <sup>2)</sup>	optional (0,5-1,5 mm <sup>2</sup> )
15.0365	WF6-S16-EG	Connector set with end-housing (incl. 3 power contacts)	x		x		
15.0366	WF6-S25-EG			x	x		
15.0375	WF6-S16-WST	Connector set with form shroud (incl. 3 power contacts)	x			x	
15.0376	WF6-S25-WST			x		x	
15.0385	WF6-S16+2-EG	Connector set with end-housing (incl. 3 power + 2 pilot contacts)	x		x		x
15.0386	WF6-S25+2-EG				x		x
15.0395	WF6-S16+2-WST	Connector set with form shroud (incl. 3 power + 2 pilot contacts)	x			x	x
15.0396	WF6-S25+2-WST				x	x	x

**Accessories (please order separately)**

Order No.	Type	Designation	Max. quantity per connector set	see page
31.5300	6KT-KOD/A	Hexagonal coding pin	1	10
15.0335	SHZ-KP135	Protective cap	1	10



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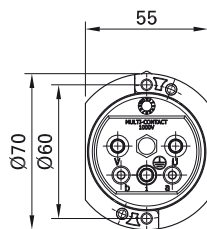
<sup>1)</sup> Cable gland not supplied  
<sup>2)</sup> No coated adhesive inside

# Female flanged connector sets

Connector sets below are available for 2 cable cross-sections with either a straight form shroud or a robust end-housing (re-usable).

Power contacts are always included in the delivery. Pilot contacts are also available under a different order number.

Coding pins can be added to eliminate the possibility of mating errors and protective caps protect from dust and humidity.



WF6-B...-EG



WF6-B...-WST

Order No.	Type	Designation	Socket contacts		Strain relief		Pilot contacts
			SP6/16 (16 mm <sup>2</sup> )	SP6/25 (25 mm <sup>2</sup> )	M40 <sup>1)</sup> End-housing	Form shroud <sup>2)</sup>	optional (0,5-1,5 mm <sup>2</sup> )
15.0360	WF6-B16-EG	Connector set with end-housing (incl. 3 power contacts)	x		x		
15.0361	WF6-B25-EG			x	x		
15.0370	WF6-B16-WST	Connector set with form shroud (incl. 3 power contacts)	x			x	
15.0371	WF6-B25-WST			x		x	
15.0380	WF6-B16+2-EG	Connector set with end-housing (incl. 3 power + 2 pilot contacts)	x		x		x
15.0381	WF6-B25+2-EG				x		x
15.0390	WF6-B16+2-WST	Connector set with form shroud (incl. 3 power + 2 pilot contacts)	x			x	x
15.0391	WF6-B25+2-WST				x	x	x

**Accessories (please order separately)**

Order No.	Type	Designation	Max. quantity per connector set	see page
31.5300	6KT-KOD/A	Hexagonal coding pin	1	10
15.0335	SHZ-KP135	Protective cap	1	10



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<sup>1)</sup> Cable gland not supplied  
<sup>2)</sup> No coated adhesive inside.

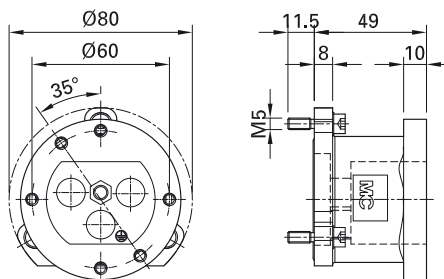
# Transformer primary connector sets (2+PE)

Quick disconnect solutions for the primary side of the welding transformer, either as panel mounting housing or as receptacle. Silver plated pins are supplied. Coding pins

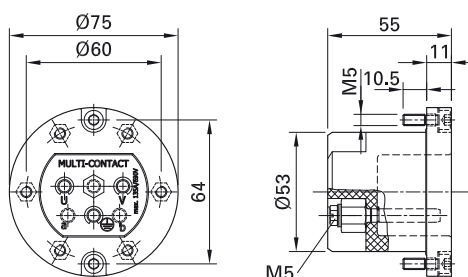
can be added to eliminate the possibility of mating errors and protective caps protect from dust and humidity.



WF6-TPC-S6/M6



TID-S6/M5



Order No.	Type	Designation	Mating part
15.0398	WF6-TPC-S6/M6	Panel mounting housing (PA), with 3 threaded pins (S6/M6-43)	WF6-B...
15.0316	TID-S6/M5	Receptacle (UP) with 3 fix mounted pins, for cable lugs <sup>1)</sup> screw connection (M5)	WF6-B...

**Accessories (please order separately)**

Order No.	Type	Designation	Max. quantity per connector set	see page
31.5331	6KT-KOD/TAG135	Hexagonal coding pin for 15.0398 (9 mm across flats)	1	10
30.5313	6KT-KOD/TID/S135	Hexagonal coding pin for 15.0316 (9 mm across flats)	1	10
18.8008	BP2/0,5-1,5	Pilot contacts, sockets for 15.0316	2	10
30.5312	PKK-TID/S	Pilot contact housing for 15.0316	2	10
15.0335	SHZ-KP135	Protective cap	1	10



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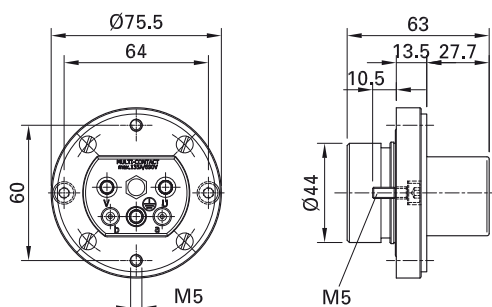
<sup>1)</sup> Not supplied



# Weld timer connector sets (2+PE)

Quick disconnect solution on the output side of the weld timer cabinet. Silver plated sockets with crimp connection are supplied. Coding pins can be added to eliminate the

possibility of mating errors and protective caps protect from dust and humidity.



Order No.	Type	Designation	Mating part
15.0322	TID-B/16	Receptacle (CR) with 3 sockets for 16mm <sup>2</sup> cables	WF6-S...
15.0323	TID-B/25	Receptacle (CR) with 3 sockets for 25mm <sup>2</sup> cables	WF6-S...

**Accessories (please order separately)**

Order No.	Type	Designation	Max. quantity per connector set	see page
31.5300	6KT-KOD/A	Hexagonal coding pin	1	10
18.9008	SP2/0,5-1,5	Pilot contacts, pins	2	10
15.0335	SHZ-KP135	Protective cap	1	10



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# Accessories

Below you can find

- pilot contacts that can be fitted into our 2+PE power connectors
- hexagonal coding pins to eliminate the possibility of mating errors



BP2/0,5-1,5



SP2/0,5-1,5



PKK-TID/S

Order No.	Type	Designation	Plating	Nom. Ø	Cross section	Rated current	Rated voltage
				mm	mm <sup>2</sup>	A (max.)	V (max.)
18.8008	BP2/0,5-1,5	Pilot socket	Ag	2	0,5-1,5	16	600
18.9008	SP2/0,5-1,5	Pilot pin	Ag	2	0,5-1,5	16	600
30.5312	PKK-TID/S	Pilot contact housing (only necessary for TID-S6/M5, 15.0316)					



6KT-KOD/TAG135



6KT-KOD/TID/S135



6KT-KOD/A

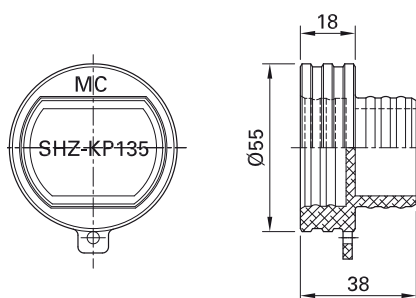
Order No.	Type	Designation	Fits to
15.5331	6KT-KOD/TAG135	Hexagonal coding pin	WF6-TPC-S6/M6
30.5313	6KT-KOD/TID/S135	Hexagonal coding pin	TID-S6/M5
31.5300	6KT-KOD/A	Hexagonal coding pin	WF6-B..., WF6-S..., TID-B/...

Below you can find

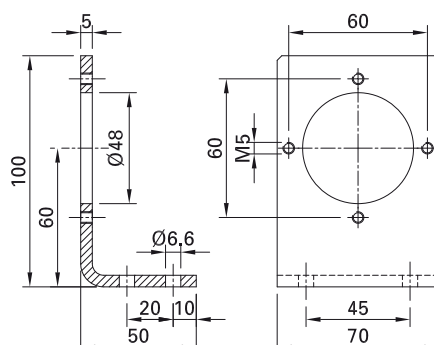
- protective caps used to preserve unmated connectors against dust and humidity (IP54)
- a right-angled mounting bracket (steel) where WF6-B... and WF6-S can be mounted together



SHZ-KP135



W-TS



Order No.	Type	Designation	Fits to
15.0335	SHZ-KP135	Protective cap	WF6-B..., WF6-S..., TID..., WF6-TPC...
15.5043	W-TS	Mounting bracket	WF6-B..., WF6-S...

# Assembly tools

Appropriate insertion and extraction tools are required to mount and remove the contacts from the contact carrier.

**Warning:** using different tools commonly damages the insulators and contacts.



ME-WZ6



MBA-WZ6



MSA-WZ6



ME-WZ1,5/2

Order No.	Type	Designation	Contact nominal Ø	
			Power (mm)	Pilot (mm)
18.3016	ME-WZ6	Insertion tool for pin and socket	6	
18.3017	MBA-WZ6	Extraction tool for socket	6	
18.3018	MSA-WZ6	Extraction tool for pin	6	
18.3003	ME-WZ1,5/2	Insertion tool for pin and socket		1,5/1,57/2
18.3008	MBA-WZ2	Extraction tool for socket		2
18.3009	MSA-WZ2	Extraction tool for pin		2

# Crimping tools

Appropriate crimping tools are required for long-lasting connections and high energy efficiency. Since a connector is always as good as its cable connection, we recom-

mend using tools that we have tested and approved. We also offer electro-hydraulic crimping tools (CZK2-...) in addition to the manual tools shown below.

**Warning:** using untested crimping tools may cause power loss and overheating due to high resistance as well as mechanical issues.

M-PZ13



MES-PZ-TB9/16



MES-PZ-TB11/25



M-PZ-T2600



M-CZ



Order No.	Type	Designation	Cable cross section	
			Power (mm <sup>2</sup> )	Pilot (mm <sup>2</sup> )
18.3700	M-PZ13	Manual crimping pliers		
18.3703	MES-PZ-TB9/16	Insert for M-PZ13	16	
18.3704	MES-PZ-TB11/25	Insert for M-PZ13	25	
18.3710	M-PZ-T2600	Manual crimping pliers		
18.3712	TB9-13	Insert for M-PZ-T2600	16; 35	
18.3713	TB11-14,5	Insert for M-PZ-T2600	25; 50	
18.3800	M-CZ	Manual crimping pliers		
18.3820	MES-CZ1,5/2	Insert for M-CZ		0,5-1,5

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15.0366	WF6-S25-EG	6
15.0370	WF6-B16-WST	7
15.0371	WF6-B25-WST	7
15.0375	WF6-S16-WST	6
15.0376	WF6-S25-WST	6
15.0380	WF6-B16+2-EG	7
15.0381	WF6-B25+2-EG	7
15.0385	WF6-S16+2-EG	6
15.0386	WF6-S25+2-EG	6
15.0390	WF6-B16+2-WST	7
15.0391	WF6-B25+2-WST	7
15.0395	WF6-S16+2-WST	6
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WF6-B16-EG	15.0360	7
WF6-B16-WST	15.0370	7
WF6-B25+2-EG	15.0381	7
WF6-B25+2-WST	15.0391	7
WF6-B25-EG	15.0361	7
WF6-B25-WST	15.0371	7
WF6-S16+2-EG	15.0385	6
WF6-S16+2-WST	15.0395	6
WF6-S16-EG	15.0365	6
WF6-S16-WST	15.0375	6
WF6-S25+2-EG	15.0386	6
WF6-S25+2-WST	15.0396	6
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